

REMARKS

Independent claims 1, 2, 9, and 10 were rejected under Section 102(b) as anticipated by Nakayama et al. (EP 0 692 294 A1, hereinafter Nakayama). This rejection is respectfully traversed. The filters and the methods of making filters defined by these independent claims allow the pleat tip region of the filters to be narrowly confined such that the proximity of similarly shaped adjacent pleats is not limited by the thickness of the pleat tip regions. Consequently, the pleats of the filters can be packed closer together, enabling high packing efficiencies and greater filter surface area within a given envelope of space. This feature was discussed in length in the specification, for example, on pages 8 and 9. Nakayama fails to disclose this aspect of independent claims 1, 2, 9, and 10. In particular, Nakayama fails to disclose any dimensions for the filter legs, either in the specification or in the drawings. Fig. 2 provides no basis for inferring specific dimensional aspects of the filter disclosed in Nakayama. However, Fig. 2 does disclose reinforced portions 136 which are not narrowly confined, contrary to the specific advantages of invention defined in Claim 1, 2, 9, and 10. Consequently, Nakayama fails to anticipate any of these independent claims.

Independent claims 3, 4, 5, 7, and 12 were rejected under Section 102(b) as anticipated by Pall (U.S. Patent No. 4,184,966, hereinafter Pall). This rejection is respectfully traversed. Pall discloses methods for improving a side seam seal. Separate, opposite ends of a corrugated filter sheet are joined to one another at a side seam seal by melting or adhering and the purpose of a side seam seal is to prevent fluid from flowing through the side seam seal. Pleats on the other hand, are intended to allow fluid to flow through them. One of ordinary skill in the art would not find any teachings related to a side seal seam as relevant to a pleat tip region because the functions of a side seal seam are completely unrelated to a pleat. Pall, thus, fails to anticipate any of independent claims 3, 4, 5, 7, and 12.

Independent claim 8 was rejected under Section 102 (b) as being anticipated by Kadoya et al. (U.S. Patent No. 5,273,560, hereinafter Kadoya). This rejection is respectfully traversed. Kadoya fails to mention anything concerning bulbous pleat tip portions or the problems associated with them. Rather, Kadoya discloses exactly the type of filter element which can be improved by the present invention, i.e., by eliminating bulbous pleat tip regions. Kadoya thus fails to anticipate independent claim 8.

Because all of the independent claims are patentable, it is respectfully contended that the dependent claims are patentable and the rejections of the dependent claims are moot.

In re Appln. of WELCH et al.
Application No. 09/720,197

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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Amendment or ROA - Regular (Revised 5/1/03)